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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,238	07/22/2003	Stefan Zimmer	HAWE-51-107	7560

26875 7590 12/02/2005

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EXAMINER

GUIDOTTI, LAURA C

ART UNIT PAPER NUMBER

1744

DATE MAILED: 12/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/624,238

Applicant(s)

ZIMMER, STEFAN

Examiner

Laura C. Guidotti

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 4,5 and 12 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 4,5 and 12 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 09 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 5 is objected to because of the following informalities:

In claim 5, it appears that there is an omission of words. Claim 5 recites, "...the bristles are comprise abrasive materials." There appears to be a slight grammatical error in Claim 5. Does Applicant intend "...the bristles are comprised of abrasive materials"? Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by

Rosenstatter, USPN 4,619,009.

Rosenstatter discloses the claimed invention including a single brush head (44) comprising an inner portion and an outer portion (outer portion is outer periphery of "44" and the inner portion is nearest the center opening where "26" is located as shown in Figure 12), a plurality of bristles (12) arranged in the outer portion in a singular annular pattern defined by inner and outer peripheral borders (49, 50; Column 9 Lines 20-30; Column 11 Lines 61-65), the bristles are spaced substantially uniformly in both circumferential and radial directions of the brush head (see Figure 12; Figure 8; Column 11 Lines 61-65), the bristles each having an inner end mounted to the brush head and

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an outer tip (see Figure 12, one end of "12" is mounted to "44" and also has an outer tip projecting downwards), the tips collectively defining an annular concave surface wherein the bristles decrease in length from the outer peripheral border toward an inner peripheral border (see Figure 12), the brush head being devoid of bristles in the inner portion interiorly of the inner peripheral border of the annular pattern (see Figure 12).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al., 5,996,157 in view of Fattori et al., USPN 6,347,425.

Smith et al. disclose the claimed invention including a dental brush comprising a single brush head (Column 1 Lines 51-54) comprising an inner portion and an outer portion (outer portion comprising outer periphery of the brush head as shown in Figures 5 and 7, inner portion comprising central point of bristle disc as shown in Figures 5 and 7), a plurality of bristles arranged in the outer portion in a singular annular pattern defined by inner and outer peripheral borders (see Figures 5 and 7), the bristles spaced substantially uniformly in both circumferential and radial directions of the brush head (see uniform radial spacing in Figures 5 and 7, uniform circumferential spacing is shown in examples of another embodiment in Figures 2A-4B), the bristles having an inner end mounted to the brush head and an outer tip, the tips defining a concave surface wherein

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the bristles decrease in length from the outer periphery inward (see Figures 5 and 7).

Smith et al. includes a method of obtaining a dental instrument such as the one mentioned above, engaging the convex surface of the tooth with the bristles of the brush, and actuating the brush for rotary movement (the rotary movement is caused by the multiple levels of bristles, Column 1 Lines 33-54, Column 3 Lines 21-27). Smith et al. does not disclose that the brush is devoid of bristles interiorly of the annular bristle arrangement.

Fattori et al. disclose all elements above, including that the brush head is devoid of bristles interiorly of the annular bristle arrangement in order to hold a quantity of toothpaste or to conform to the contours of teeth (Column 3 Lines 56-59; see Figures).

It would have been obvious for one of ordinary skill in the art to modify the bristle arrangement of Smith et al. to make the center interior portion devoid of bristles, as Fattori et al. teach, in order to provide a region within the bristles where toothpaste is easily held to distribute to the teeth that are being cleaned.

4. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al., 5,996,157 and Fattori et al., USPN 6,347,425, as applied to claim 12, in view of Muhler et al., USPN 10/624,238.

Smith et al. and Fattori et al. disclose all elements above, however do not specifically state as to what material the bristles comprise of.

Muhler et al. disclose discloses that the bristles may be made from polyamides, polyolefins, polypropylene, or polyethylene, all of which are capable of being thermally resistant (Column 3 Lines 24-31) and that the bristles comprise abrasive materials

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(Column 2 Lines 41-55) so that the bristles may be used to more effectively clean teeth (Column 9 Lines 40-47).

It would have been obvious for one of ordinary skill in the art to modify the bristle material of Smith et al. and Fattori et al. to comprise of a thermally resistant synthetic material including abrasive materials, as Muhler et al. teach, in order to have a material that effectively cleans teeth.

5. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenstatter, USPN 4,619,009, as applied to claim 12, in view of Muhler et al., USPN 10/624,238.

Rosenstatter discloses all elements above, however does not specifically state as to what material the bristles comprise of.

Muhler et al. disclose discloses that the bristles may be made from polyamides, polyolefins, polypropylene, or polyethylene, all of which are capable of being thermally resistant (Column 3 Lines 24-31) and that the bristles comprise abrasive materials (Column 2 Lines 41-55) so that the bristles may be used to more effectively clean teeth (Column 9 Lines 40-47).

It would have been obvious for one of ordinary skill in the art to modify the bristle material of Rosenstatter to comprise of a thermally resistant synthetic material including abrasive materials, as Muhler et al. teach, in order to have a material that effectively cleans teeth.

### ***Applicant's Arguments***

6. In the response filed 22 September 2005, the Applicants contend that:

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A. Fattori does not include "a single annular pattern defined by inner and outer peripheral borders, said bristles spaced substantially uniformly in both circumferential and radial directions of said brush head." Also, Weihrauch is directed to a brush having spaced bristles disposed across the entirety of the brush head to promote drying of the bristles. Weihrauch does not teach or suggest modifying the brush of Fattori to have a singular annular pattern of bristles.

B. The bristle arrangement of Smith depends upon the centrally located bristles on each of the pads to facilitate turning the rotary pads when the device is manipulated against the teeth of the user, so by eliminating the central bristles in view of Fattori, would make the device unfit for its intended purpose.

***Response to Arguments***

7. Applicant's argument A, filed 22 September 2005, with respect to 35 USC 103(a) of Fattori in view of Weihrauch have been fully considered and are persuasive. The rejection of Fattori in view of Weihrauch applied to claims 4-5 and 12 has been withdrawn.

8. Applicant's argument B filed 22 September 2005 has been fully considered but it is not persuasive.

In Column 1 Lines 37-40, Smith states that it is the movement of brushing and the multiple levels of bristles that propel the bristles to rotate. If the central bristles in the inner periphery of Smith were eliminated, as Fattori teaches (in order to retain toothpaste), the device of Smith would still be capable of functioning in its intended

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purpose. It is further noted that the device of Smith may have only one rotary pad (Column 1 Lines 51-54).

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C. Guidotti whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone



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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LC8  
LCG

28 November 2005



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